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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : Confirmation No. 5528  
Etsuko NAKAMURA et al. : Docket No. 2003\_1698A  
Serial No. 10/721,164 : Group Art Unit 1752  
Filed November 26, 2003 : Examiner Amanda C. Walke

LOWER LAYER MATERIAL FOR WIRING,  
EMBEDDED MATERIAL, AND WIRING  
FORMATION METHOD

Mail Stop: Office of Initial Patent  
Examination's Filing Receipt Corrections

**REPLY TO DENIAL OF REQUEST FOR CORRECTED FILING RECEIPT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicants' Request for Corrected Filing Receipt was denied in a paper dated January 13, 2005 on the ground that an amendment is needed to make the requested change in the filing receipt.

In this regard, the title given in the filing receipt is "Undercoating material for wiring, embedded material, and wiring formation method". However, the title given in the Specification is "Lower layer material for wiring, embedded material, and wiring formation method" and this is the correct title.

It is also the title given in the Declaration with which the Application was filed.

A copy of the title page of the specification as well as a copy of the Declaration is enclosed so it is clear that Applicants' Request for Corrected Filing Receipt dated January 6, 2005 should have been granted without amendment.

Respectfully submitted,

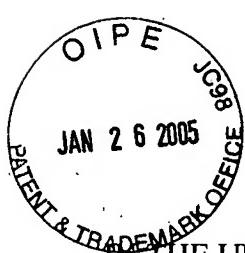
Etsuko NAKAMURA et al.

By: \_\_\_\_\_

Matthew M. Jacob  
Registration No. 25,154  
Attorney for Applicants

THE COMMISSIONER IS AUTHORIZED  
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MJ/kes  
Washington, D.C. 20006-1021  
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January 26, 2005



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Etsuko NAKAMURA et al.

: Confirmation No. 5528

Serial No. 10/721,164

: Mail Stop: OFFICE OF INITIAL  
PATENT EXAMINATION'S FILING  
RECEIPT CORRECTIONS

Filed November 26, 2003

: Attorney Docket No. 2003\_1698A

LOWER LAYER MATERIAL FOR WIRING,  
EMBEDDED MATERIAL, AND WIRING  
FORMATION METHOD

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**REQUEST FOR CORRECTED FILING RECEIPT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

A corrected filing receipt is requested in the above-referenced case. A copy of the original filing receipt is enclosed, with the changes noted thereon.

Expedited issuance of the corrected filing receipt is respectfully requested.

Respectfully submitted,

Etsuko NAKAMURA et al.

By Matthew M. Jacob  
Matthew M. Jacob  
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Attorney for Applicants

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January 6, 2005


**UNITED STATES PATENT AND TRADEMARK OFFICE**

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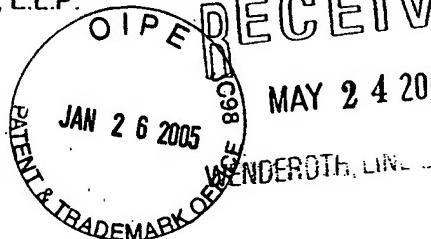
APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FEE REC'D	ATTY.DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/721,164	11/26/2003	1752	1974	2003-1698A	10	39	4

**CONFIRMATION NO. 5528**

000513  
 WENDEROTH, LIND & PONACK, L.L.P.  
 2033 K STREET N. W.  
 SUITE 800  
 WASHINGTON, DC 20006-1021

**UPDATED FILING RECEIPT**

\*02000000012735619\*



MAY 24 2004

Date Mailed: 05/21/2004

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

**Applicant(s)**

Etsuko Nakamura, Kanagawa, JAPAN;  
 Kazumasa Wakiya, Kanagawa, JAPAN;

**Domestic Priority data as claimed by applicant**
**Foreign Applications**

JAPAN 2002-343867 11/27/2002  
 JAPAN 2002-343868 11/27/2002  
 JAPAN 2002-343869 11/27/2002  
 JAPAN 2002-343870 11/27/2002

**If Required, Foreign Filing License Granted: 04/24/2004**
**Projected Publication Date: 08/26/2004**
**Non-Publication Request: No**
**Early Publication Request: No**
**Title**
*see page 2.*  
 →

Lower layer material for wiring, embedded material, and  
Undercoating material for wiring, embedded material, and wiring formation method. wiring formation

Preliminary Class

430

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LICENSE FOR FOREIGN FILING UNDER  
Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

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NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



LOWER LAYER MATERIAL FOR WIRING,  
EMBEDDED MATERIAL, AND  
WIRING FORMATION METHOD

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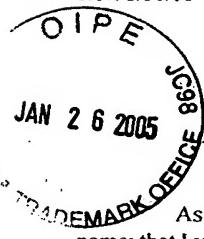
CROSS-REFERENCE TO RELATED APPLICATIONS

This application is based upon and claims the benefit of priority from the prior Japanese Patent Applications No. 2002-343867, No. 2002-343868, No. 2002-343869 and No. 2002-343870 filed on November 27, 2002; the 10 entire contents of which are incorporated herein by reference.

BACKGROUND OF THE INVENTION

1) Field of the Invention

The present invention relates to an undercoating material used 15 preferably for forming wiring on a semiconductor substrate, a filler material and a wiring formation method using the same. The undercoating material referred to herein indicates (a) an undercoating layer which is formed on a substrate before formation of a photoresist layer on the substrate whereby a reflected exposure light from the surface of the substrate at the time of patterning of a photoresist is prevented from entering the photoresist, to achieve improvement in the resolution of the photoresist pattern, (b) an 20 undercoating layer suitable for a silicon bilayer resist, which is characterized by improving the patterning accuracy of a resist by constituting a photoresist layer used in lithography for wiring, from two layers, that is, an undercoating layer including an organic film and a silicon-containing upper resist layer, and 25



## DECLARATION AND POWER OF ATTORNEY FOR U.S. PATENT APPLICATION

米国特許出願宣言書及び委任状

**Japanese Language Declaration**  
日本語宣言書（英語でご記入下さい）

As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that I verily believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:  
下記の氏名の発明者として、私は以下の通り宣言します。私の住所、郵便物送付先、国籍は下記の私の氏名の後に記載された通りです。  
下記の名称の発明に関して請求の範囲に記載され、特許出願している発明内容について、私が最初かつ唯一の発明者（下記の氏名が一つの場合）もしくは最初かつ共同発明者（下記の氏名が複数の場合）であると信じています。

Title (発明の名称) :

## LOWER LAYER MATERIAL FOR WIRING, EMBEDDED MATERIAL, AND WIRING FORMATION METHOD

of which is described and claimed in:

上記名称の発明を記述し特許請求する書類は、以下のいずれかです。

( ) the attached specification, or  
本状に添付した明細書

the specification in the application Serial No. 10/721,164 filed November 26, 2003  
(上記日付) 提出の米国出願番号(上記出願番号)で、

and with amendments through \_\_\_\_\_ (if applicable), or  
(該当する場合) (上記日付等) に訂正された明細書

( ) the specification in International Application No. PCT/\_\_\_\_\_, filed \_\_\_\_\_,  
and as amended on \_\_\_\_\_ (if applicable).  
(上記日付) 提出の特許協力条約に基づく国際出願番号PCT/(上記出願番号)で、  
(該当する場合) (上記日付等) に訂正された明細書

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above.

私は、特許請求の範囲を含む上記訂正後の明細書を検討し、内容を理解していることをここに表明します。

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR §1.56.

私は、連邦規則法典第37編第1条56項に定義されるとおり、特許性の有無について重要な情報を開示する義務があることを認めます。

I hereby claim priority benefits under Title 35, United States Code, §119 (and §172 if this application is for a Design) of any application(s) for patent or inventor's certificate listed below and have also identified below any application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

私は、米国法典第35編119条（もし本願が意匠に関する出願の場合は172条）に基き、下記の特許出願又は発明者証の出願についての優先権の利益をここに主張するとともに、優先権主張の基礎となる出願日を有する、本出願の前に出願された特許または発明者証の出願を以下にすべて、枠内をマークすることで示しています。

COUNTRY 国名	APPLICATION NO. 出願番号	DATE OF FILING 出願日	PRIORITY CLAIMED 優先権主張
Japan	2002-343867	Nov. 27, 2002	Yes
Japan	2002-343868	Nov. 27, 2002	Yes
Japan	2002-343869	Nov. 27, 2002	Yes
Japan	2002-343870	Nov. 27, 2002	Yes

I hereby claim the benefit under Title 35, United States Code §120 of any United States application(s), or 365(c) of any PCT international application designating the United States listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose information material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which become available between the filing date of the prior application and the national or PCT international filing date of this application:

私は、米国法典第35編120条に基いて下記の米国特許出願、又は米国を指定している特許協力条約365条(c)に基づく優先権をここに主

私は、米国法典第35編120条に基いて下記の米国特許出願、又は米国を指定している特許協力条約365条(c)に基づく優先権をここに主張します。また、本出願の各請求の範囲の技術的事項が米国法典第35編112条第1段で規定された方法で先行する米国特許出願に開示されていない限り、当該先行出願の出願日以降で本出願の国内又はPCTに基づく国際出願の提出日までの期間中に入手できるようになった、連邦規則法典第37編1条56項で定義された特許性の有無に関する重要な情報について、開示義務があることを認識しています。

APPLICATION SERIAL NO. 出願番号	U.S. FILING DATE 米国出願日	STATUS: PATENTED, PENDING, ABANDONED 現状:特許許可済、係属中、放棄済

And I hereby appoint Michael R. Davis, Reg. No. 25,134; Matthew M. Jacob, Reg. No. 25,154; Warren M. Cheek, Jr., Reg. No. 33,367; Nils E. Pedersen, Reg. No. 33,145; Charles R. Watts, Reg. No. 33,142; and Michael S. Huppert, Reg. No. 40,268, who together constitute the firm of WENDEROTH, LIND & PONACK, L.L.P., as well as any other attorneys and agents associated with Customer No. 000513, to prosecute this application and to transact all business in the U.S. Patent and Trademark Office connected therewith.

私は、本出願の審査及び本出願に関連するすべてのビジネスに関わる手続きを米国特許商標局に対して遂行するため、共同でWENDEROTH, LIND & PONACK, L.L.P.法律事務所を構成しているMichael R. Davis（登録番号第25,134号）、Matthew M. Jacob（登録番号第25,154号）、Warren M. Cheek, Jr.（登録番号第33,367号）、Nils E. Pedersen（登録番号第33,145号）、Charles R. Watts（登録番号第33,142号）及びMichael S. Huppert（登録番号第40,268号）並びにカスタマー番号第000513号に付帯する他の弁護士及び弁理士を名いたします。

I hereby authorize the U.S. attorneys named herein to accept and follow instructions from \_\_\_\_\_ as to any action to be taken in the U.S. Patent and Trademark Office regarding this application without direct communication between the U.S. attorneys and myself. In the event of a change in the persons from whom instructions may be taken, the U.S. attorneys named herein will be so notified by me.

私は、本願に関して米国特許商標局で行われるあらゆる手続行為に関し、ここに指名した米国弁護士を、弁護士と私との間で直接連絡をとることなく、(米国弁護士が連絡する相手先。譲受人もしくは日本の代理人等)からの指示を受けそれに従うことを、ここに承認します。指示を送る者が変更される場合は、その旨を上記米国弁護士は私から告知されます。

Direct Correspondence to Customer No: (カスタマー番号)   000513 PATENT TRADEMARK OFFICE	Direct Telephone Calls to: (連絡先電話番号)  WENDEROTH, LIND & PONACK, L.L.P. 2033 "K" Street, N.W., Suite 800 Washington, D.C. 20006-1021  Phone:(202) 721-8200 (電話番号) Fax:(202) 721-8250 (ファクシミリ番号)
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Full Name of First Inventor 第一発明者の氏名	Etsuko Nakamura Etsuko NAKAMURA	Date Feb. 2, 2004
Residence & Citizenship 居住地及び国籍	Kanagawa, Japan	
Post Office Address 郵便物送付先	c/o TOKYO OHKA KOGYO CO., LTD. 150 Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa 211-0012 Japan	

Full Name of Second Inventor 第二発明者の氏名	Kazumasa Wakuya Kazumasa WAKIYA	Date Feb. 2, 2004
Residence & Citizenship 居住地及び国籍	Kanagawa, Japan	
Post Office Address 郵便物送付先	c/o TOKYO OHKA KOGYO CO., LTD. 150 Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa 211-0012 Japan	

I further declare that all statements made herein of my own knowledge are true, and that all statements on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

私は、私自身の知識に基づいて本宣言書中で私が行う表明が真実であり、かつ私の入手した情報と私の信じるところに基づく表明がすべて真実であると信じていること、さらに故意になされた虚偽の表明及びそれと同等の行為は米国法典第18編第1001条に基づき、罰金または拘禁、もしくはその両方により処罰されること、そしてそのような故意による虚偽の声明を行えば、出願した、又は既に許可された特許の有効性が失われることを認識し、よってここに上記のごとく宣誓を致します。

The above application may be more particularly identified as follows:

上記出願は、さらに具体的には以下のように特定されます。

U.S. Application Serial No. 10/721,164 Filing Date November 26, 2003  
(上記出願日) 提出の米国特許出願第 (上記出願番号) 号

Applicant Reference Number \_\_\_\_\_ Atty Docket No.  
出願人側整理番号 (上記番号) 米国弁護士側管理番号 (上記番号)

Title of Invention  
発明の名称

LOWER LAYER MATERIAL FOR WIRING, EMBEDDED MATERIAL, AND WIRING FORMATION METHOD